Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (Canceled)

17. (Previously presented) A circuit that determines a current supplied by an integrated circuit comprising:

a sensing impedance disposed on the integrated circuit;

a modulation impedance;

a first measurement device coupled to the modulation and sensing impedances and configured to measure a first voltage drop across each impedance;

a termination impedance;

a second measurement device coupled to the termination impedance and configured to measure a second voltage drop across the termination impedance; and

processing circuitry configured to receive the first and second voltage drops measured by the first and second measurement devices, respectively, and to calculate supplied current therefrom.

18. (Original) The circuit of claim 17 wherein the first measurement device is an analog to digital converter.

19. (Original) The circuit of claim 17 wherein the second measurement device is an analog to digital converter.

20. (Original) The circuit of claim 18 wherein the second analog to digital converter further comprises a trimmed voltage reference.

21. (Original) The circuit of claim 17 wherein the termination impedance is a precision resistor.

22. (Previously presented) The circuit of claim 21 wherein the precision resistor is a resistor external to the integrated circuit.

23. (Previously presented) The circuit of claim 21 wherein the precision resistor is a resistor internal to the integrated circuit.

24. (Original) The circuit of claim 17 further comprising a sinking circuit coupled to the modulation resistor.

25. (Original) The circuit of claim 17 wherein the supplied current is a modulation current.

26. (Withdrawn) A circuit that determines a current supplied by an integrated circuit comprising:

a sensing impedance disposed on the integrated circuit;

a modulation impedance;

a first measurement device coupled to the sensing impedance configured to measure a voltage drop across the sensing impedance;

a second measurement device coupled to the modulation impedance configured to measure voltage drop across the modulation impedance;

a termination impedance;

a third measurement device coupled to the termination impedance configured to measure a voltage drop across the termination impedance; and

processing circuitry configured to receive information from the first, second, and third measurement devices and calculate supplied current therefrom.

27. (Withdrawn) The circuit of claim 26 wherein the first measurement device is an analog to digital converter.

28. (Withdrawn) The circuit of claim 26 wherein the second measurement device is an analog to digital converter.

29. (Withdrawn) The circuit of claim 26 wherein the third measurement device is an analog to digital converter.

30. (Withdrawn) The circuit of claim 26 wherein the second analog to digital converter further comprises a trimmed voltage reference.

31. (Withdrawn) The circuit of claim 26 wherein the termination impedance is a precision resistor.

32. (Withdrawn) The circuit of claim 26 wherein the termination impedance is a switched capacitor circuit.

33. (Withdrawn) The circuit of claim 31 wherein the termination impedance is an external resistor.

34. (Withdrawn) The circuit of claim 26 further comprising a sinking circuit coupled to the modulation impedance.

35. (Withdrawn) The circuit of claim 26 wherein the supplied current is a modulation current.

36. (Canceled)

37. (Currently amended) A method for determining a current supplied by an integrated circuit comprising:

determining a voltage drop across a termination impedance with respect to a reference voltage;

comparing a voltage drop across a [[frist]] first impedance on the integrated circuit with a voltage drop across a second impedance on the integrated circuit, wherein the first impedance is different from the second impedance;

processing information obtained in the determining and comparing steps to obtain a value for the supplied current;

determining an impedance value of the first impedance, an impedance value of the second impedance, the voltage provided by the voltage reference, and the impedance value of the termination impedance; and

calculating a first value by dividing the value of the second impedance by the value of the first impedance, calculating a second value by dividing the value of the voltage drop across the termination impedance by the value of the reference voltage, calculating a third value by dividing the value of the reference voltage by the value of the termination impedance, calculating a fourth value by dividing the value of

the voltage drop across the first impedance by the value of the reference voltage, calculating a fifth value by dividing the value of the voltage drop across the second impedance by the value of the reference voltage, and wherein the comparing further comprises calculating a sixth value by dividing the voltage drop across the first impedance by the voltage drop across the second impedance.

38. (Previously presented) The method of claim 37 wherein the processing further comprises multiplying the first value, the second value, the third value, and the sixth value.

39. (Previously presented) The method of claim 37 further comprising calculating a seventh value by dividing the fourth value by the fifth value.

40. (Previously presented) The method of claim 38 further comprising wherein the processing further comprises multiplying the first value, the second value, the third value, and the seventh value.

41. (Previously presented) Circuitry for determining a bias current provided by an integrated circuit comprising:

an off-chip impedance, not disposed on the integrated circuit, having a known resistance;

a source impedance disposed on the integrated circuit, wherein a first terminal of the source impedance is coupled to a first terminal of the off-chip impedance;

a modulation impedance disposed on the integrated circuit, wherein a second terminal of the modulation impedance is coupled to a second terminal of the off-chip impedance;

a first measurement device for measuring an off-chip voltage drop across the off-chip impedance with respect to a reference voltage;

a second measurement device for measuring a source voltage drop across the source impedance with respect to a modulation voltage drop across the modulation impedance; and

processing circuitry configured to determine the bias current based on the measurements of the first and second measurement devices.

42. (Previously presented) A method for controlling the amount of output power provided by an integrated circuit, the method comprising:

measuring a first voltage drop across an off-chip impedance with respect to a reference voltage, wherein the

off-chip impedance is not disposed on the integrated circuit, and the off-chip impedance has a known resistance;

measuring a second voltage drop across a source impedance with respect to a third voltage drop across a modulation impedance, wherein the source and modulation impedances are disposed on the integrated circuit;

determining a bias current based on the first, second and third voltage measurements; and

adjusting the bias current based on the determined bias current to control the amount of output power provided by the integrated circuit.